

Municipal Setting Designations



MSDs: Another tool for Houston

Jennifer Clancey
Program Manager

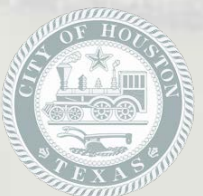


Municipal Setting Designations (MSDs)



Agenda

- City of Houston - Programmatic
 - What the MSD is
 - Who the MSD impacts
 - Steps in the MSD process
- MSD Applicant - Technical
 - Specific information on the site
3001 Engelke Street
 - **Questions / Comments**



Environmental Protection in Texas

- ❑ The State of Texas has jurisdiction for environmental protection
 - ❑ Texas Commission on Environmental Quality (TCEQ)

- ❑ Environmental Complaints



- ❑ By Phone: 1-888-777-3186
 - ❑ Online: <http://www5.tceq.texas.gov/oce/complaints/>




- ❑ By Phone: 311
 - ❑ Online: http://webintake.houstontx.gov/web_intake/Controller



Municipal Setting Designations (MSDs)



MSD Notice Letters



CITY OF HOUSTON
Public Works and Engineering Department

Annis D. Parker
Mayor

Michael S. Marcotte, P.E., D.WRE, SCEE
Director
P.O. Box 1562
Houston, Texas 77251-1562

www.houstontx.gov

February 3, 2010

RE: MSD Application #2009-022-FCE
1111 Lockwood Drive, Houston, TX 77020

Dear Recipient:

Enclosed is a public meeting notice about an upcoming meeting in your area. This is an informational meeting about a property at 1111 Lockwood Drive, Houston, TX 77020 that has contaminated groundwater. We welcome you to attend the public meeting, but it is not mandatory that you come.

The public meeting will be held at:
3/11/2010
6:00 PM
Ripley House
4410 Navigation, Houston, TX 77011

The following notice will give you additional details about the type of contamination that has been found at the site. Please note: the groundwater contamination at the site is very shallow and is not the groundwater that the City of Houston uses for some of its drinking water. Most of the City's drinking water is now from surface water (lakes Houston, Conroe, and Livingston).

The purpose of this public meeting is to inform you, the nearby neighbors and well owners, about the Municipal Settings Designation (MSD) program and the application. During the meeting a representative from the city will talk about the MSD program and then the MSD applicant will talk about the site. You may come to the meeting just to listen or you can share a comment. Comments can be given in person at the meeting or you can send them to the State of Texas and/or to the City of Houston at the following addresses.

Mr. Scott Settemeyer
Remediation Division
Texas Commission on Environmental Quality
P.O. Box 13087, MC-225
Austin, Texas 78711.

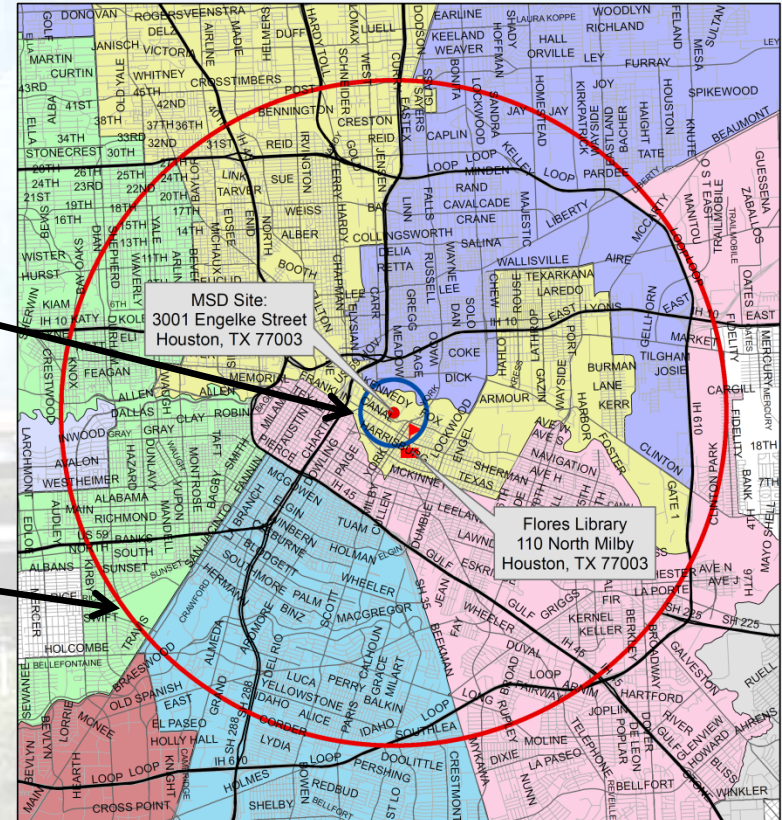
Richard Chapin
Public Works and Engineering Department
City of Houston
611 Walker, 19th Fl.
Houston, Texas 77002
msd@cityofhouston.net
(713) 637-0928

A MSD is the way the city can legally say that the contaminated groundwater at a property cannot be used for drinking water now or in the future, thereby protecting public health. It may also help a contaminated site develop or redevelop because the state's requirements to clean up contaminated groundwater may be set at levels based on this restriction. The MSD does not excuse the applicant from clean up activities such as removing the surface soil or reducing other risks to the public.

Council Members: Brenda Stanley, Janis Johnson, Anne Claitor, Wendy Adams, Mike Sullivan, Al Huang, Oliver Pennington, Edward Gonzalez, James G. Rodriguez, Stephen C. Castello, Sue Loeffel, Melissa Valenzuela, C.C. "Red" Boydston, Jackson "J" Jones, Contreras, Robert C. Green

Property Owners
First-Class Mail
½-Mile Radius
City Requirement

Water Well Owners
Certified Mail
5-Mile Radius
State Requirement



If you received a notice through certified mail that means you have a water well according to the State's records

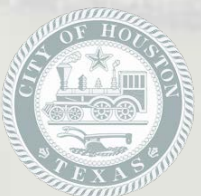


Municipal Setting Designations (MSDs)

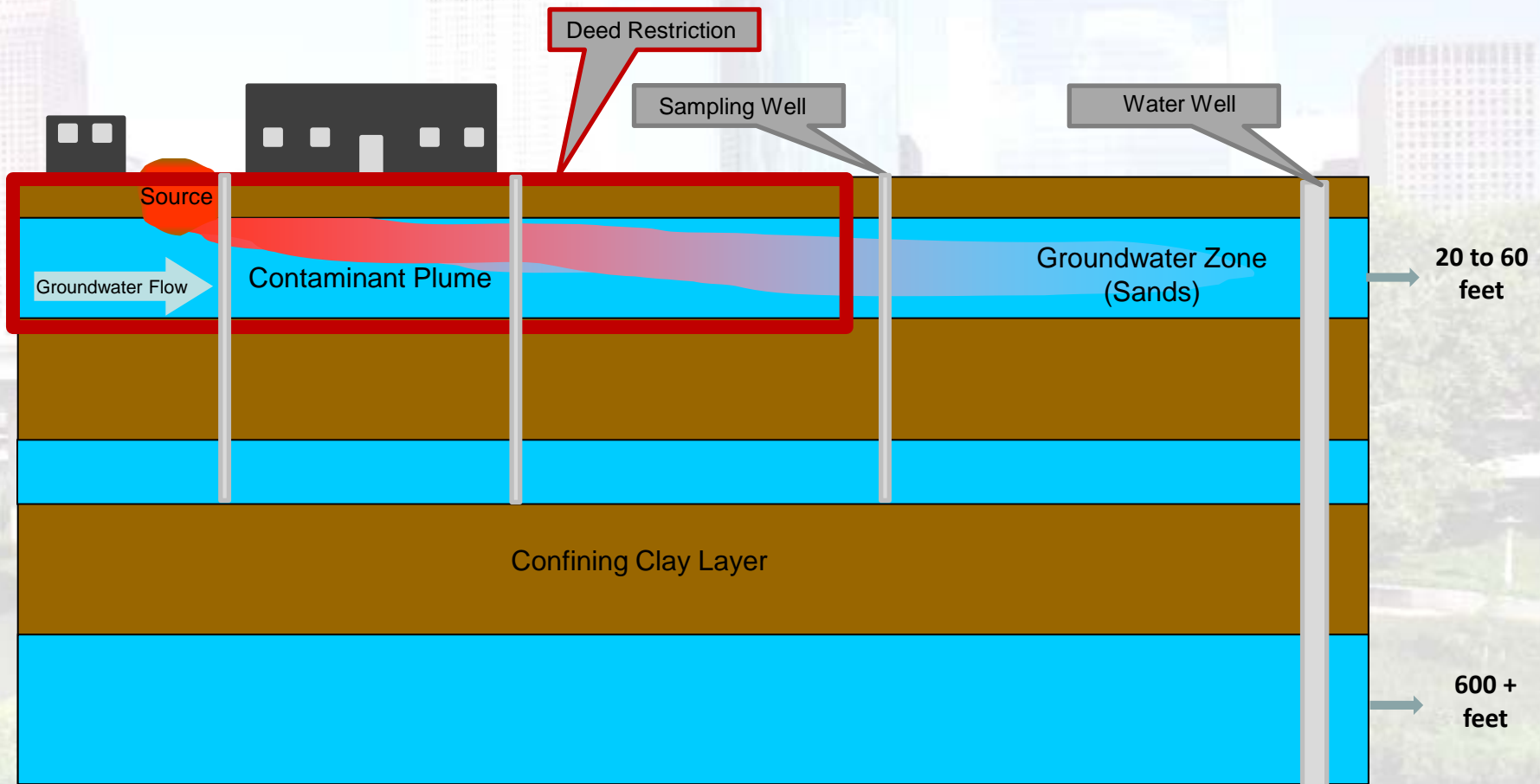


What an MSD is

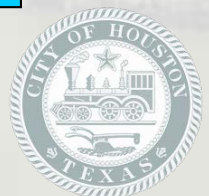
- **Voluntary** deed restriction to prevent the use of contaminated groundwater
 - No water wells on the subject property for drinking water purposes
 - A legally binding way to ensure the public is not exposed to contaminants



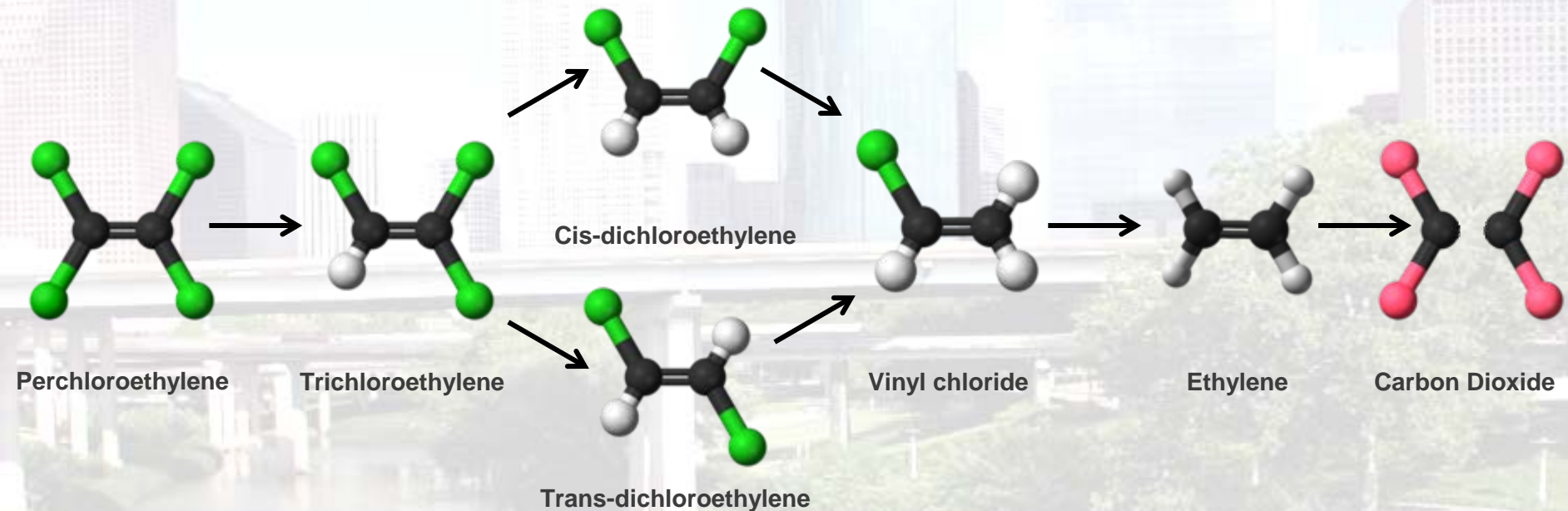
Groundwater Contamination



Please Note: Houston has shallow contaminated groundwater scattered across the City



Chemical Degradation



This process takes decades, but is found to be the most efficient strategy.

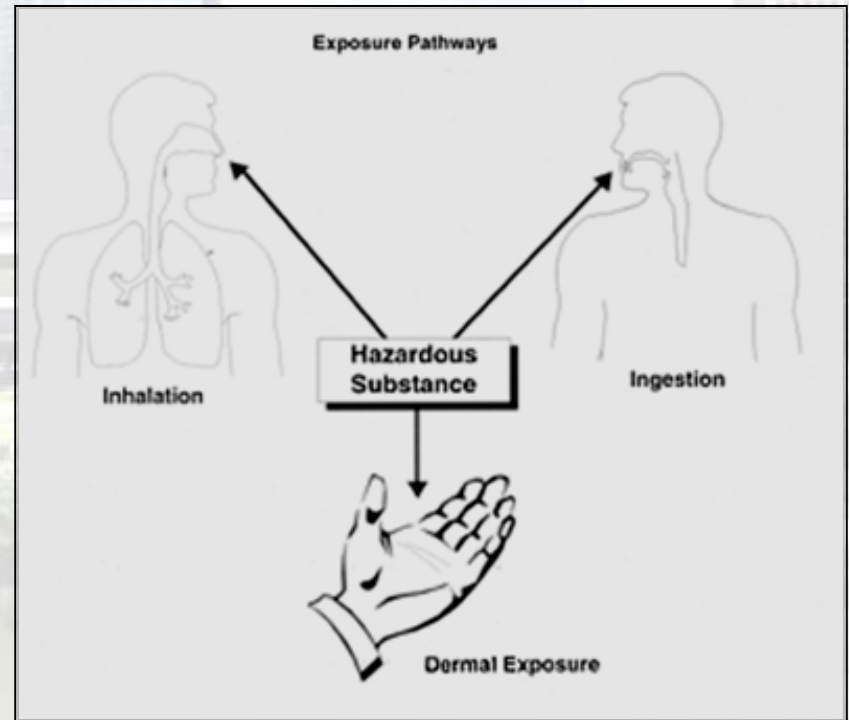


Municipal Setting Designations (MSDs)



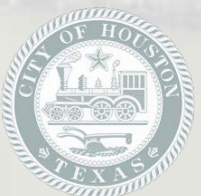
Exposure Pathways

- Cleanup Programs are based on public exposure to contaminants and reducing public health risks
- Exposure Pathways
 - ~~Ingestion~~
 - Inhalation
 - Contact (dermal)
 - Soil
 - Groundwater to surface water
 - Ecological



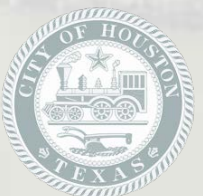
Environmental Cleanup

- The MSD is only **one step** in the cleanup process
- An MSD does **NOT** excuse the applicant from reducing risks to the public
- Responsible Parties are always responsible



Who the MSD Impacts

- An MSD does not affect you!
 - An MSD **DOES NOT AFFECT** your property
 - An MSD **DOES NOT AFFECT** your water well
 - There are **NO REQUIREMENTS** on you
- Drinking water supplied by the City is not affected

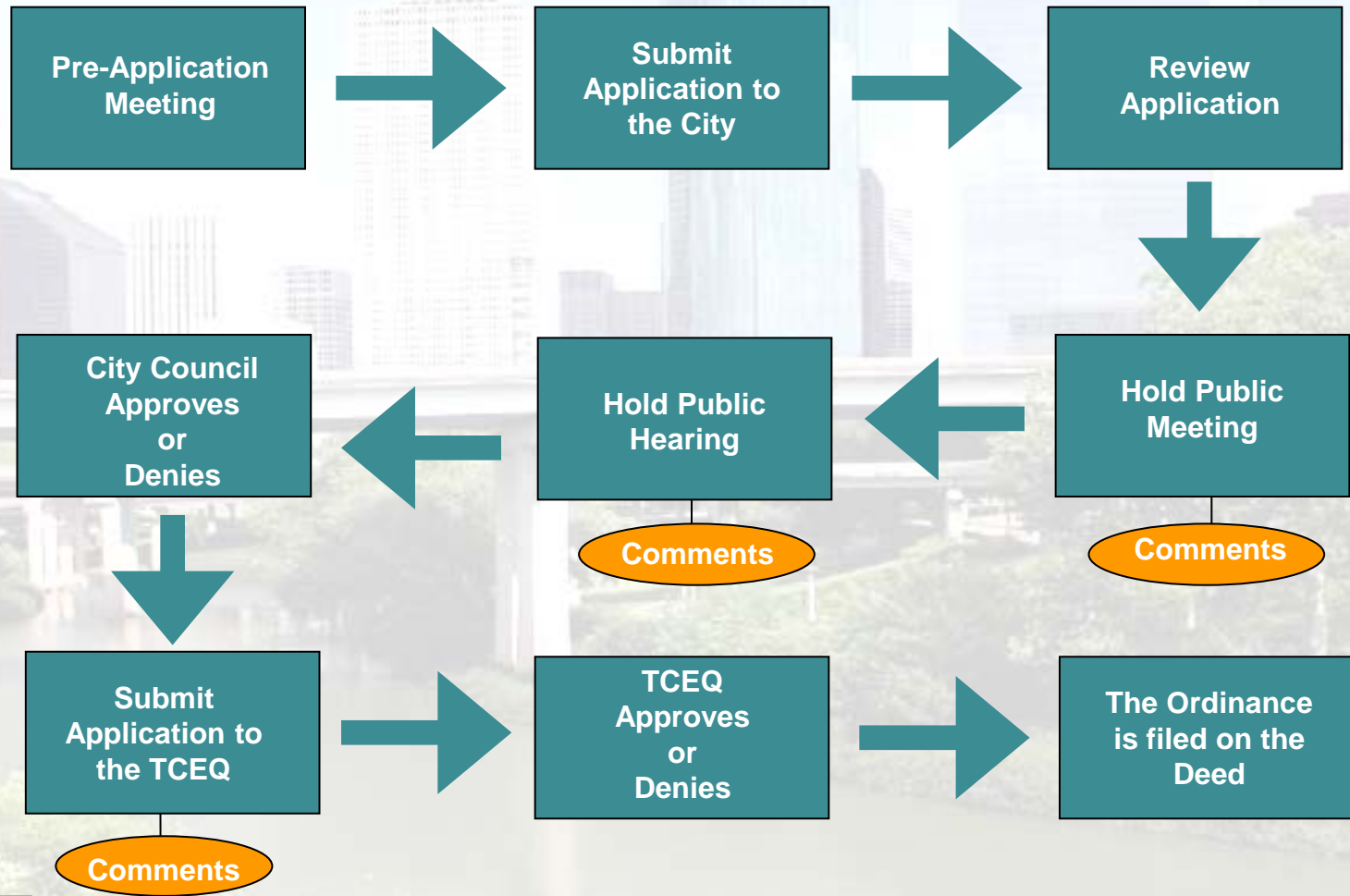


City's Requirements of the Applicant

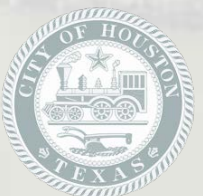
- Enrollment in a State or Federal cleanup program
- Thorough investigation confirming that the groundwater plume is stable or decreasing, and delineated
- Source of contamination has been removed/addressed
- A **third party** Engineer (P.E.) or Geologist (P.G.) must certify application



Steps in the Process

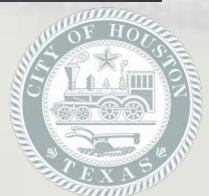


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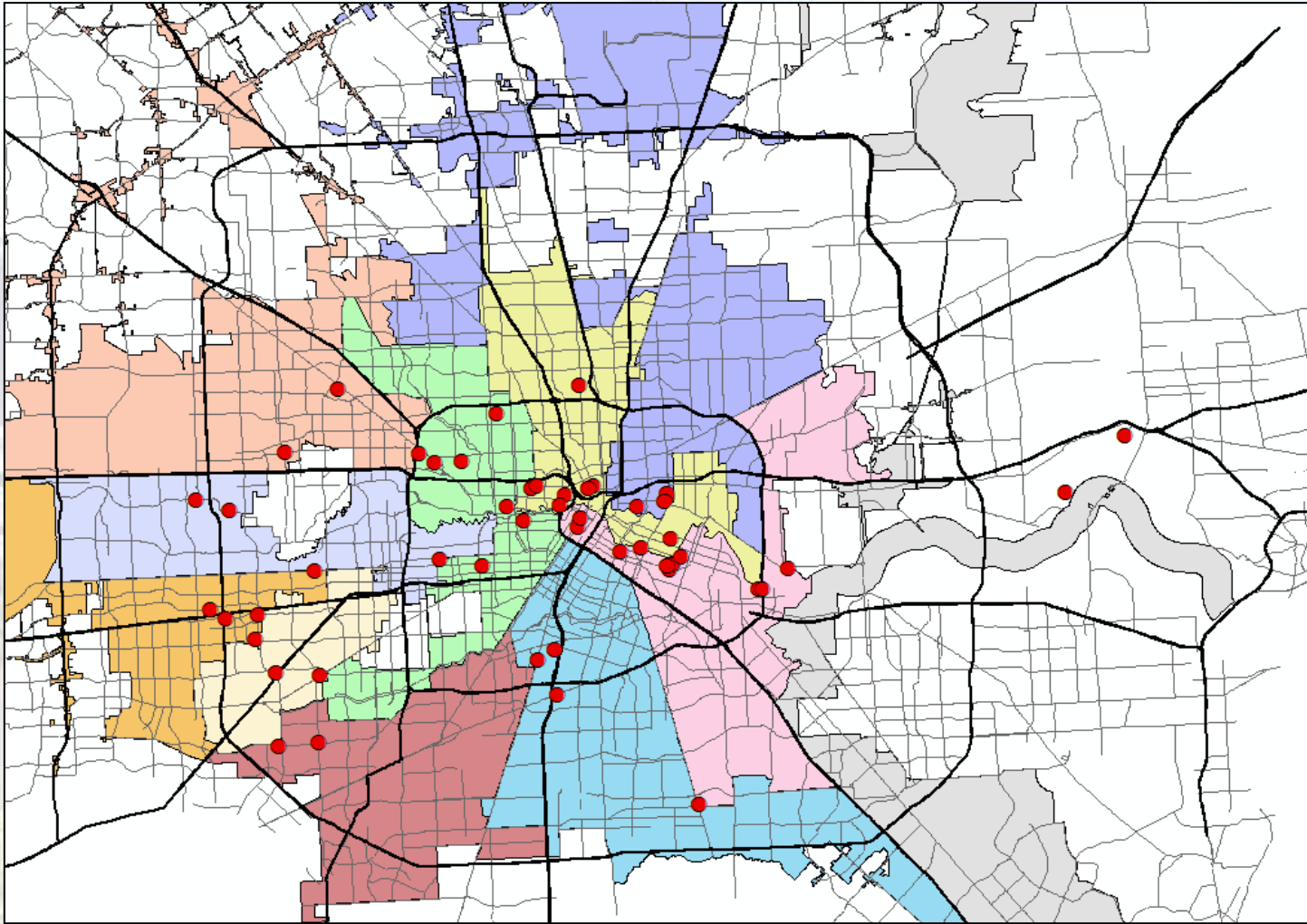


Why Support An MSD?

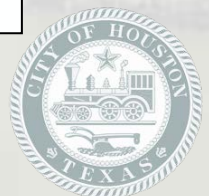
- Protects the public from consumption of contaminated groundwater
- Encourages clean-up of contaminated sites
- Promotes redevelopment of under-utilized properties



MSD Sites in Houston

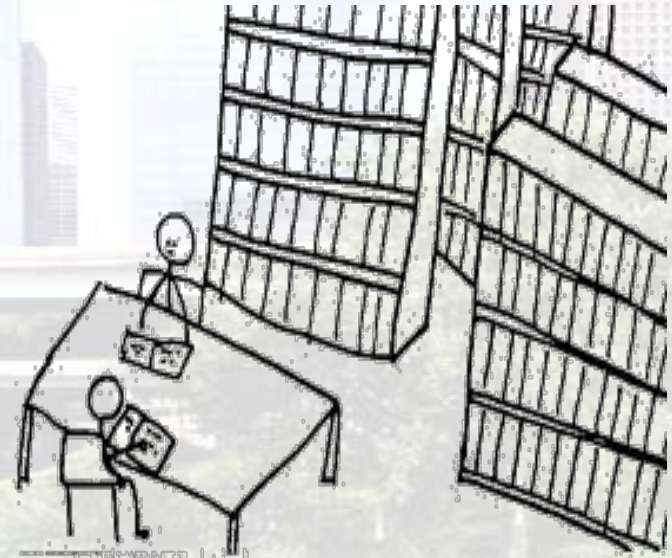


Municipal Setting Designations (MSDs)



MSD Application Availability

- Flores Library
 - 110 North Milby
 - Reference Desk
- Also available online at:
www.houstonmsd.org
 - MSD in Review Page



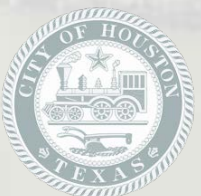
Public Hearing

- Date: February 10, 2015
- Time: 10:00 AM
- Place: City Council Chamber (Committee Meeting)
Transportation, Technology, & Infrastructure
- Address: 901 Bagby, Second Floor
Houston, Texas 77002

Any person wishing to speak on this issue must arrive at least 15 min early and sign the speakers list located on the front desk.



Municipal Setting Designations (MSDs)



Contact Information

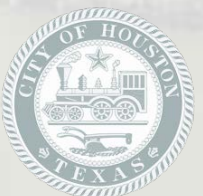
Jennifer Clancey
Program Manager

**Public Works & Engineering
City of Houston,
1002 Washington, 3rd Floor
Houston, Texas 77002**

msd@houstontx.gov
(832) 394-9005



Municipal Setting Designations (MSDs)



Municipal Setting Designation (MSD) Public Meeting

Dixie Electro Plating Company

3001 Engelke Street

Houston, Texas 77003

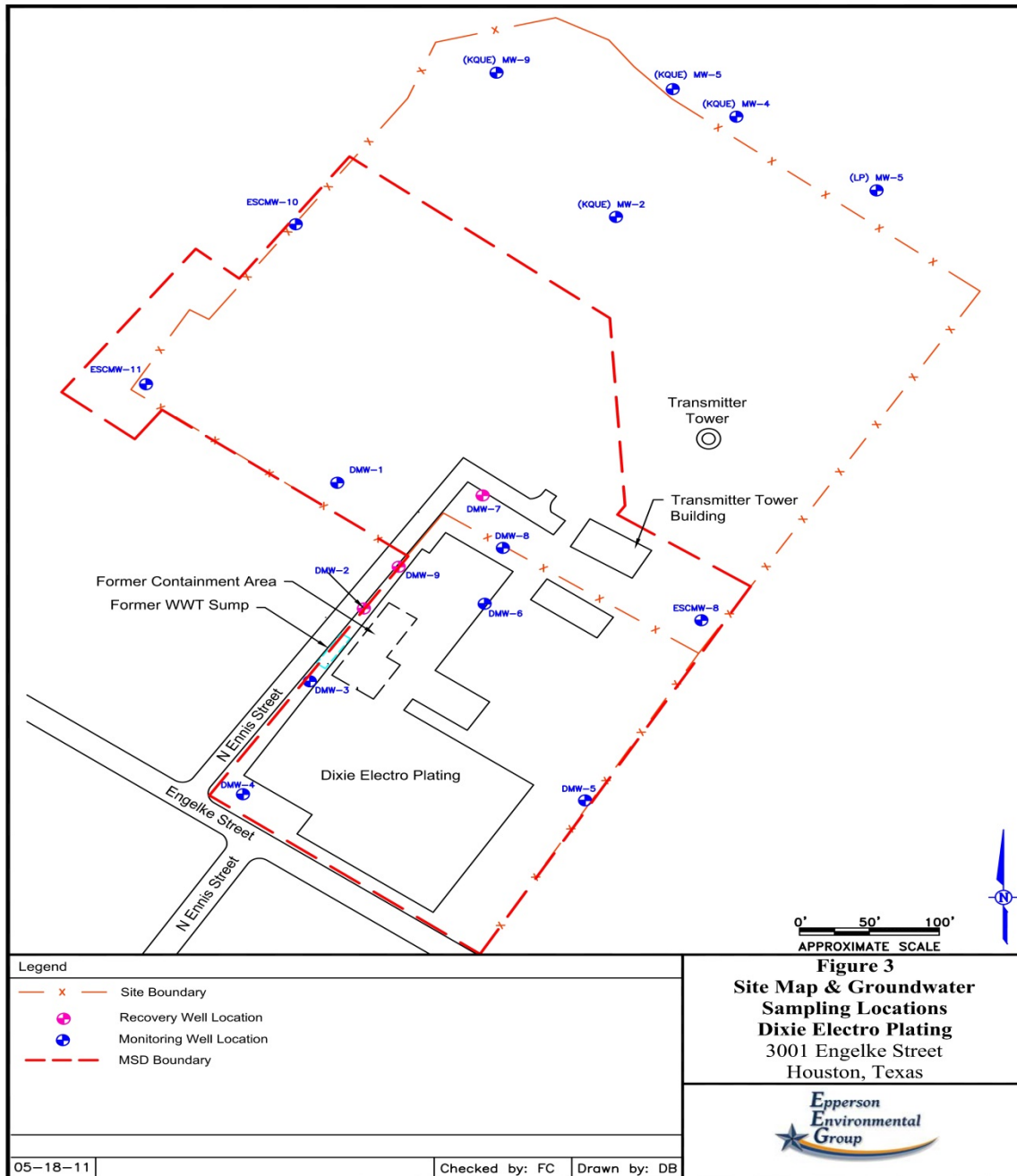
December 18, 2014



Site Characteristics

- Dixie Electro Plating Company Site – 1.478 acres
- Vacant Land Immediately North of Dixie Electro Plating Site (Owned by Dixie Electro Plating) – 0.988 acres
- 0 Cary Street Property Immediately West of Vacant Land (Owned by Dixie Electro Plating) – 0.178 acres
- Current Property Uses
 - Dixie Electro Plating began operations in 1939
 - Operations include hard chrome and nickel plating
 - Administrative Offices
 - Vacant Land





Investigation & Cleanup Activities

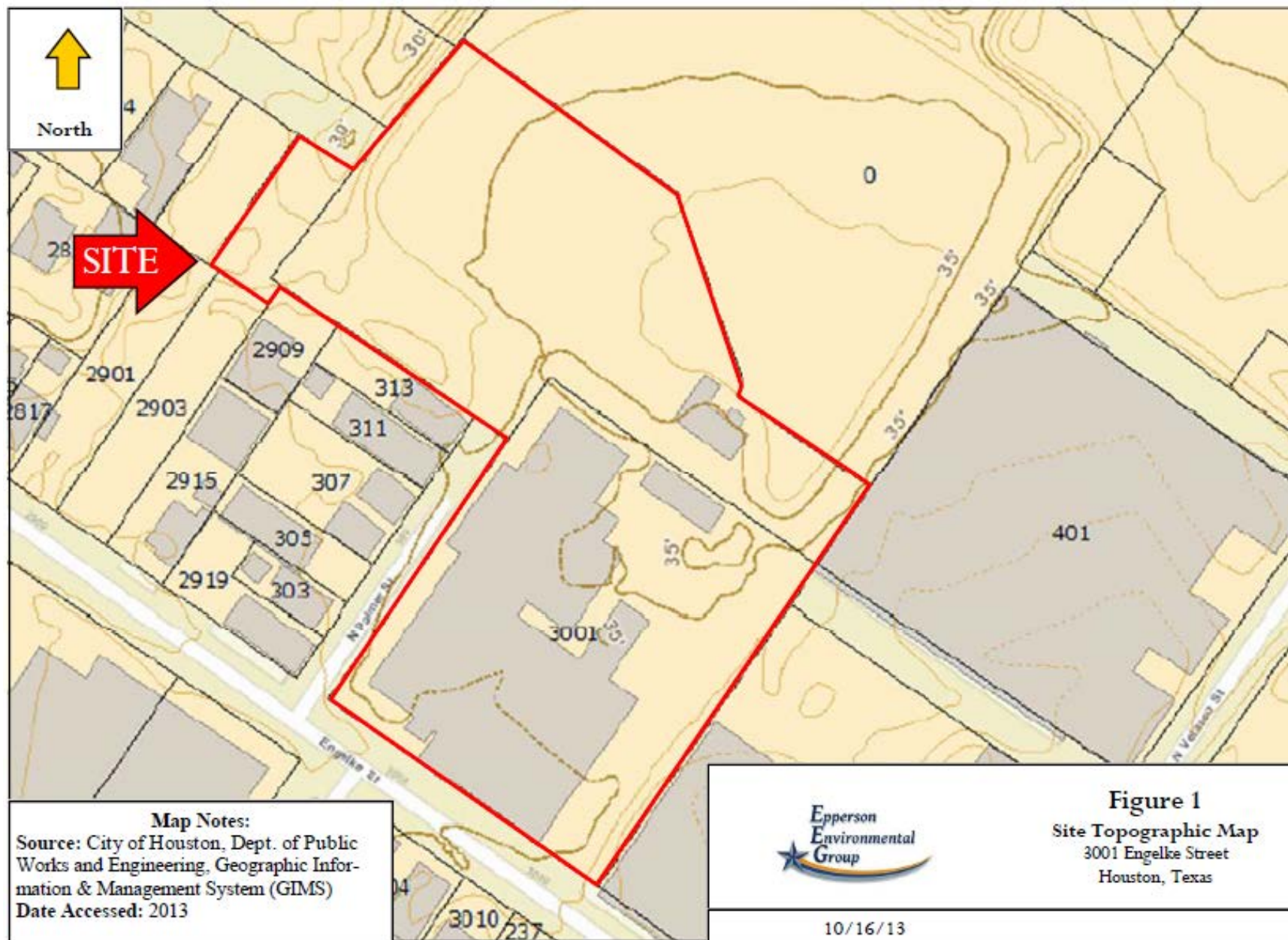
- Accepted into TCEQ Voluntary Cleanup Program in 1997
- Initial investigation conducted in 1999 revealed a release of plating chemicals into soils and shallow groundwater adjacent to the former containment area within Chrome and Nickel Plating Department and a former wastewater treatment sump in the western portion of the site
- Cadmium, chromium, copper, lead, and nickel identified at levels exceeding protective concentration levels in the soil and groundwater.
- TCEQ stated in 2001 that on-site building provides sufficient prevention of leaching of metals but the subsurface wastewater lines and the wastewater treatment plant prevent the slab from being an effective control for preventing leaching of contaminants.
- Response Action Work Plan to address both affected soil and groundwater approved by TCEQ in 2002

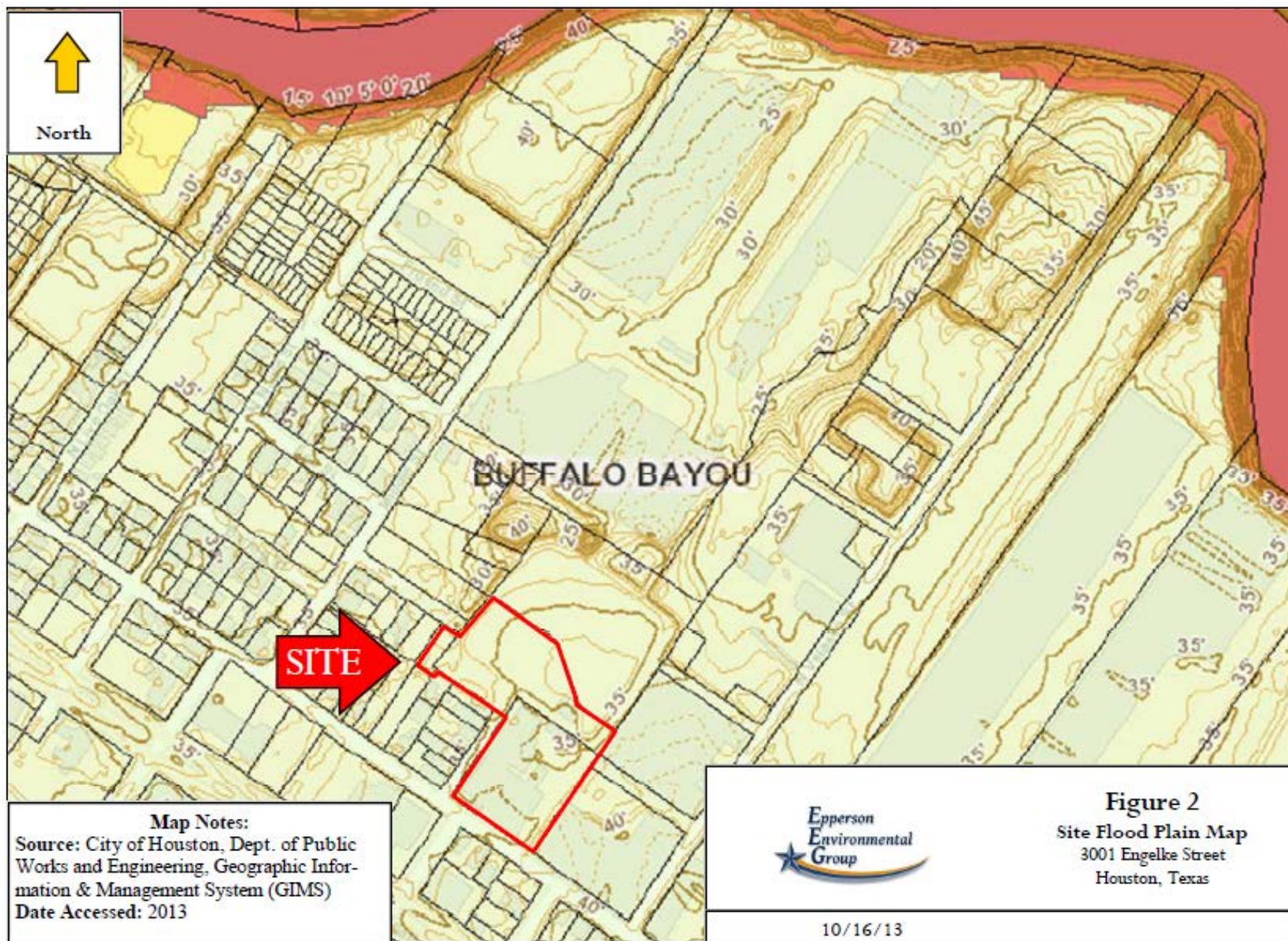


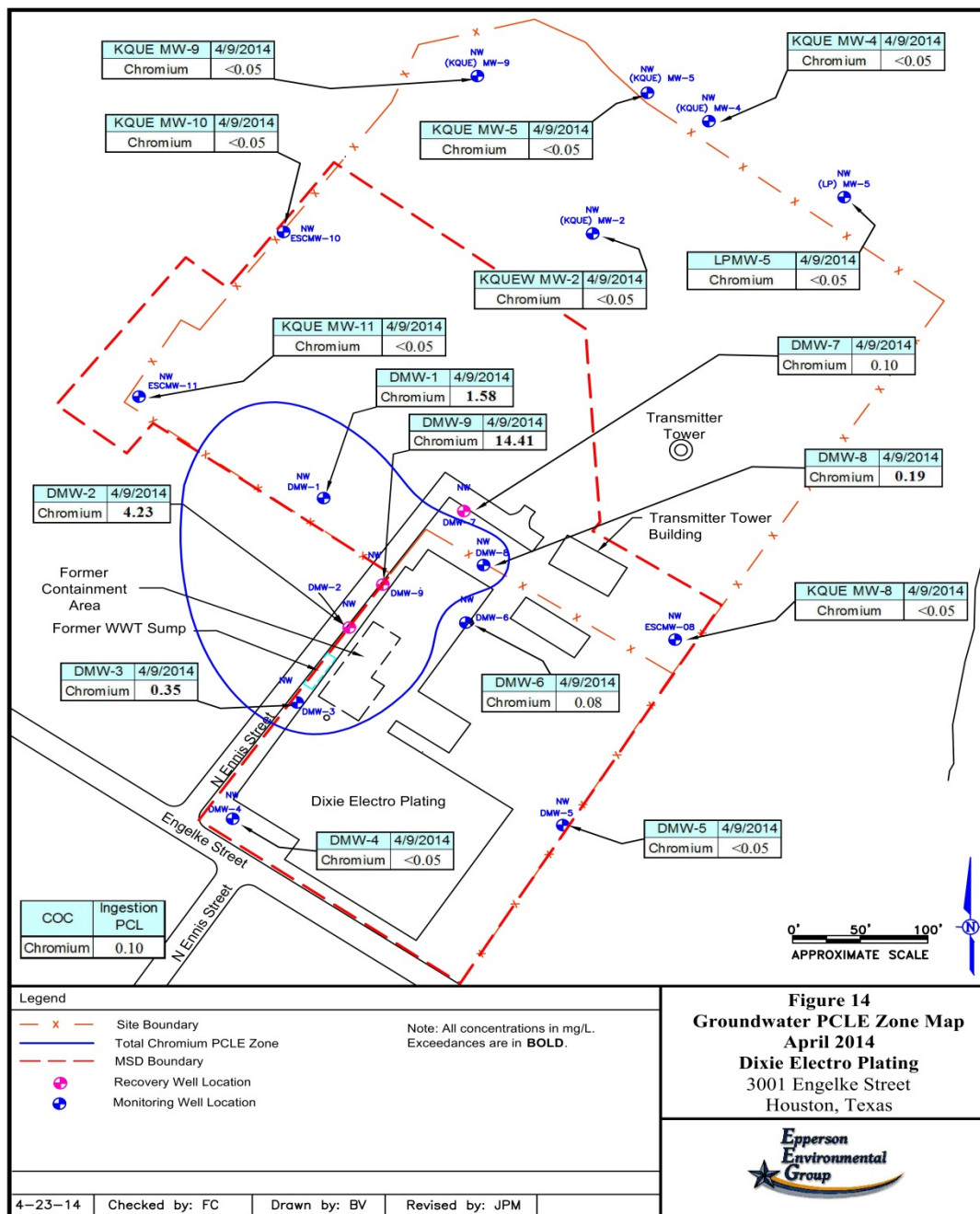
Investigation & Cleanup Activities

- Excavation and removal of the decommissioned in-ground concrete wastewater treatment tank, pit, and associated piping completed in 2003
- After directing the completion of additional removal actions in 2004-2005, TCEQ approved the closure report in September 2006.
- Groundwater Treatment System installed in 2003. System recovered affected groundwater from three recovery wells (DMW-2, DMW-8, and DMW-9) located downgradient of the former wastewater treatment sump and containment area. Fourteen additional groundwater monitoring wells installed both on-site and off-site and monitored annually
- Based its effectiveness in reducing metals concentrations in groundwater, TCEQ approved the turning off of the Groundwater Treatment System in March 2011
- Groundwater metals concentrations have continued to decrease over the past 3 years since treatment system shutdown









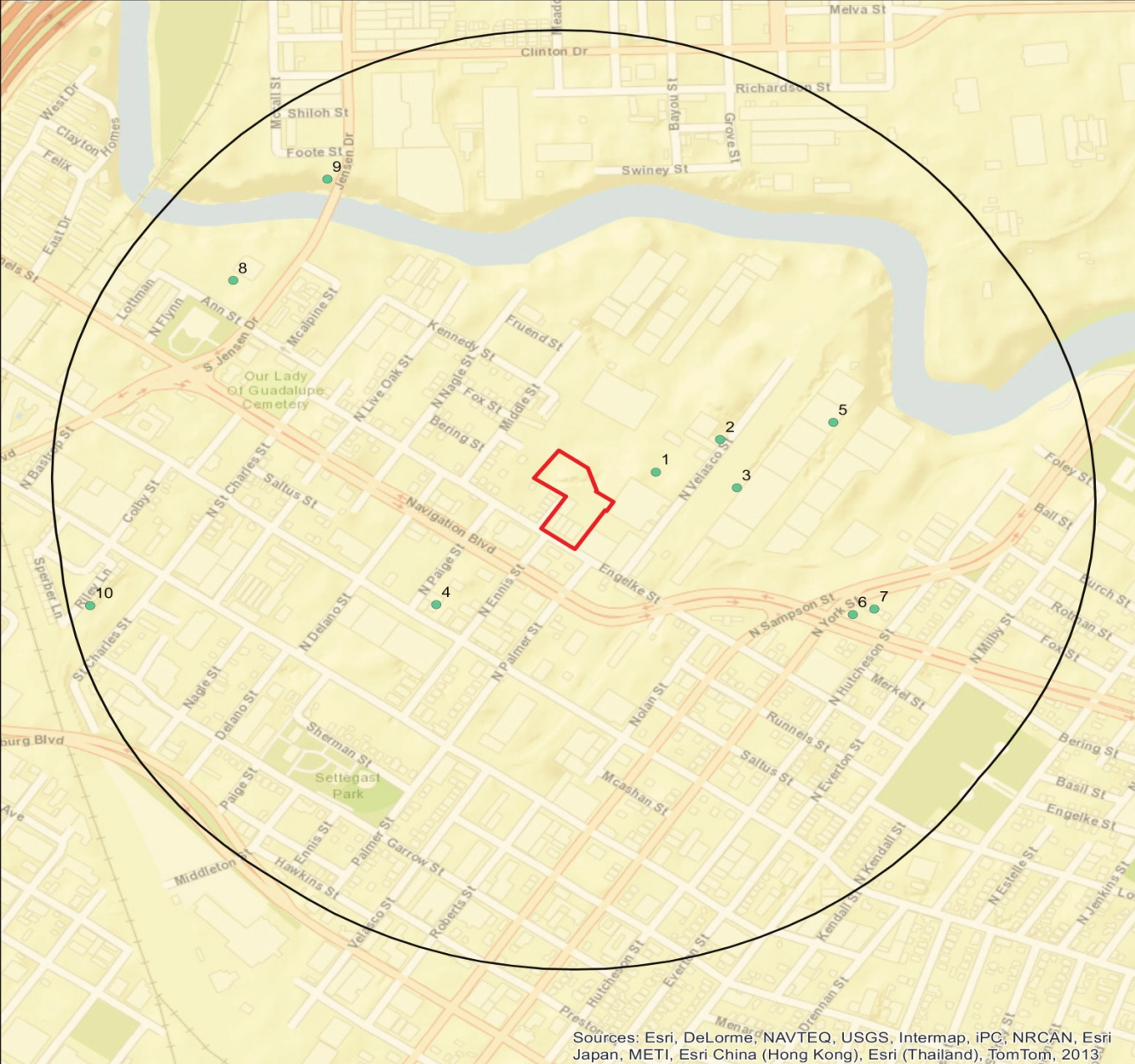
Chemical of Concern Groundwater

	COC (ppm)	Standard Without MSD	Standard With MSD	Maximum Concentration Detected
Primary	Cadmium	0.005	None	0.43
	Chromium	0.2	None	744
Secondary	Copper	1.3	None	3.93
	Lead	0.015	None	0.496
	Nickel	1.5	None	17.6



Water Wells Within ½ Mile

- No Water Wells On-Site
- 10 Water Wells Off-Site –
 - 1 Domestic (upgradient)
 - 3 Industrial
 - 2 Irrigation
 - 4 Plugged
- No Affected or Potentially Affected Water Wells



Sources: Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2013

• Water well

□ Proposed MSD

□ Municipality: Houston*

0 0.125 0.25 Miles

3001 Engelke Street, Houston, TX

Banks Environmental Data, Inc.
1601 Rio Grande Suite 500 Austin, Texas 78701
PH 512-478-0059 FAX 512-478-1433
E-Mail: banks@banksinfo.com



*Search area is completely within municipality

Regional Geology

Site

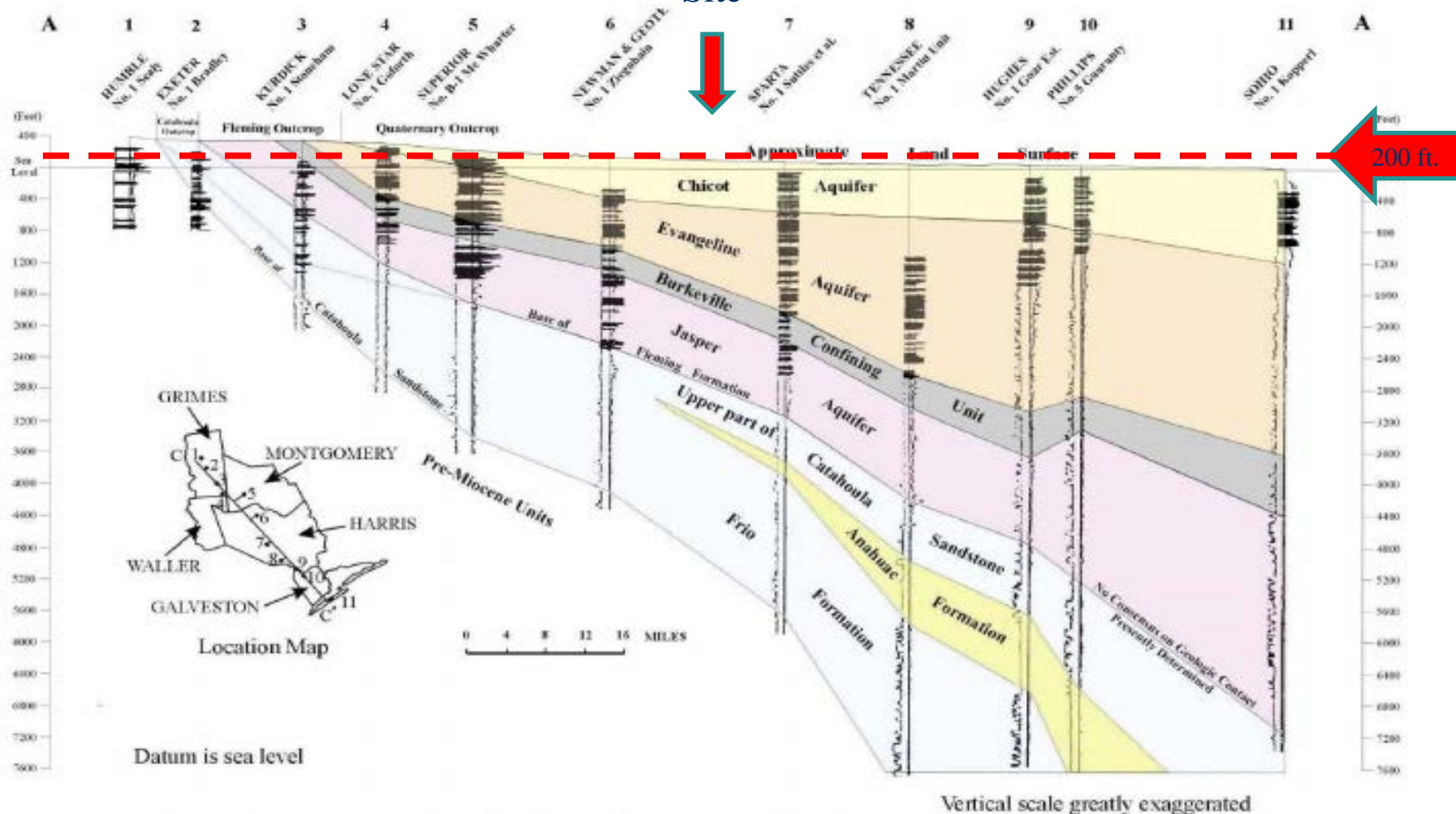
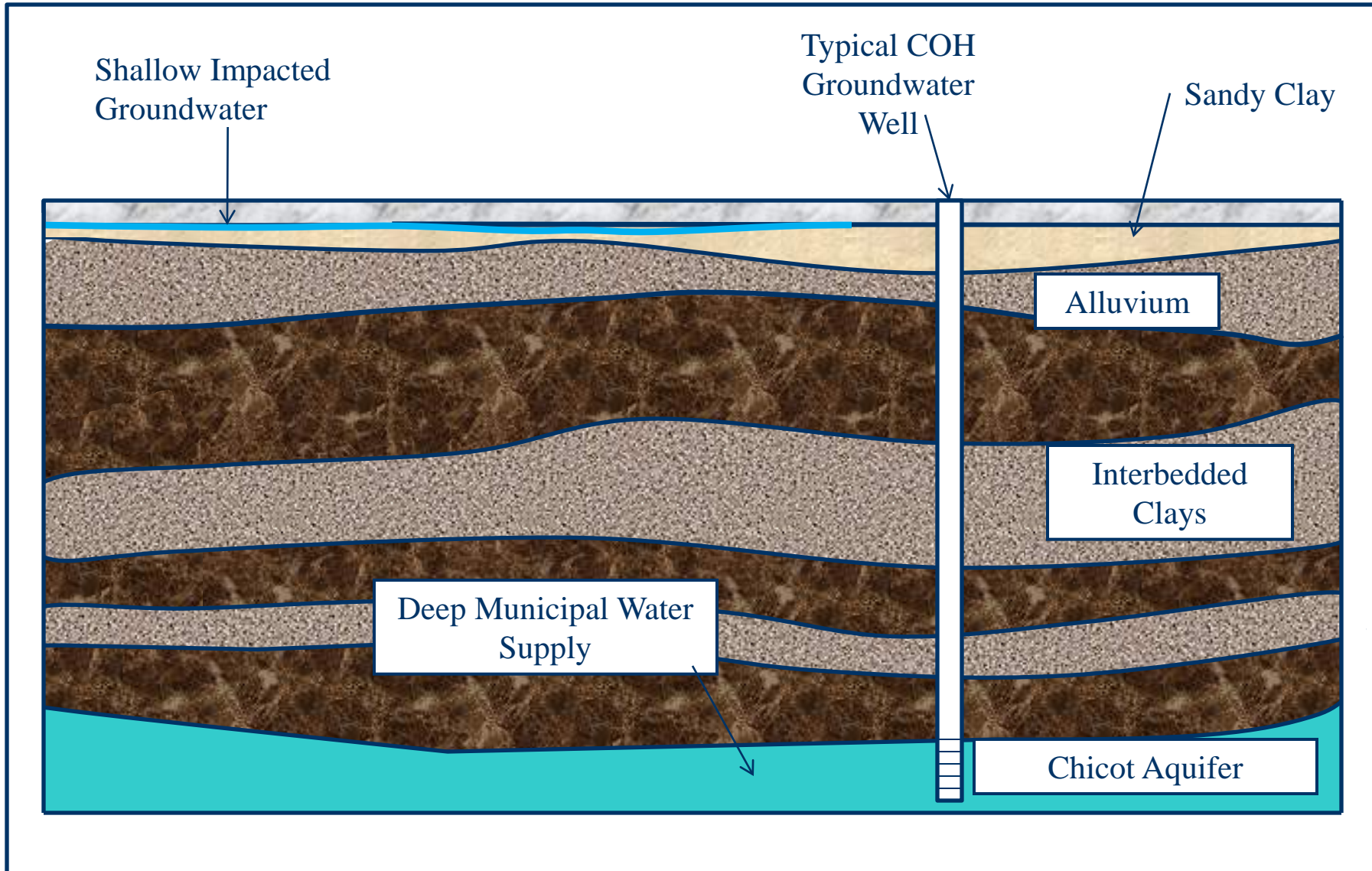


Figure 2-14. Cross-section showing thicknesses of the aquifers down-dip in the northern part of the Gulf Coast (after Baker, 1979; Kasmarek, unpublished data).

Site Hydrogeology



Applicant's Responsibilities

- Upon receipt of TCEQ's MSD Certificate, file the certificate and City ordinance into the Harris County property records – restricting potable use of groundwater on the site
- Submit a Response Action Completion Report to TCEQ concluding that no further soil or groundwater remediation is necessary at the site
- Final TCEQ Certificate of Completion



Summary

- ▶ Groundwater Impacted Only From Historical Operations
- ▶ Affected Groundwater is the Upper 50 feet of a Shallow Aquifer Overlying Over 200 feet of Interbedded Clays.
- ▶ Site Meets the City and State Criteria for an MSD – The Affected Groundwater is Stable and/or Decreasing in Concentration at the Property
- ▶ No Affected or Potentially Affected Water Wells
- ▶ Drinking Water for the Site and the Surrounding Area Provided by the City of Houston – No City of Houston Water Supply Wells Within 2 Miles
- ▶ No Additional Activities Required to Obtain TCEQ Closure through the VCP program

